

SEQUENCE LISTING

<110> Garvan Institute of Medical Research
5 HERZOG, Herbert

<120> Novel G-protein coupled receptor-encoding gene and diagnostic uses therefor

10 <130> 1871-132 (93702-CIP/MRO)

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<151> 1999-06-11

15 <150> PCT/AU98/00805
<151> 1998-09-24

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Met Thr Pro 1

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Pro Asp Leu Arg Ile Ser Ile Glu Asn Ser Glu Glu Ala Leu Thr Val

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His Ala Pro Phe Pro Ala Ala His Pro Ala Ser Arg Ser Phe Pro Asp

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Arg Phe Cys Ser Gln Arg Asn Gln Thr His Arg Ser Ser Leu His Tyr
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Lys Pro Thr Pro Asp Leu Arg Ile Ser Ile Glu Asn Ser Glu Glu Ala
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Leu Thr Val His Ala Pro Phe Pro Ala Ala His Pro Ala Ser Arg Ser
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Phe Pro Asp Pro Arg Gly Leu Tyr His Phe Cys Leu Tyr Trp Asn Arg
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His Ala Gly Arg Leu His Leu Leu Tyr Gly Lys Arg Asp Phe Leu Leu
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Ser Asp Lys Ala Ser Ser Leu Leu Cys Phe Gln His Gln Glu Glu Ser
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Leu Ala Gln Gly Pro Pro Leu Leu Ala Thr Ser Val Thr Ser Trp Trp
 130 135 140

Ser Pro Gln Asn Ile Ser Leu Pro Ser Ala Ala Ser Phe Thr Phe Ser
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Phe His Ser Pro Pro His Thr Ala Ala His Asn Ala Ser Val Asp Met
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Cys Glu Leu Lys Arg Asp Leu Gln Leu Ser Gln Phe Leu Lys His
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Pro Gln Lys Ala Ser Arg Arg Pro Ser Ala Ala Pro Ala Ser Gln Gln
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	Val	Arg	Arg	Glu	Thr	Gln	Thr	Ser	Cys	Phe	Cys	Asn	His	Leu	Thr	Tyr	370	375	380
45	Phe	Ala	Val	Leu	Met	Val	Ser	Ser	Val	Glu	Val	Asp	Ala	Val	His	Lys	385	390	395
50	His	Tyr	Leu	Ser	Leu	Ser	Tyr	Val	Gly	Cys	Val	Val	Ser	Ala	Leu		405	410	415

Ala Cys Leu Val Thr Ile Ala Ala Tyr Leu Cys Ser Arg Val Pro Leu
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5 Pro Cys Arg Arg Lys Pro Arg Asp Tyr Thr Ile Lys Val His Met Asn
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20 Gly Tyr Asn Leu Tyr Arg Leu Val Val Glu Val Phe Gly Thr Tyr Val
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25 Pro Gly Tyr Leu Leu Lys Leu Ser Ala Met Gly Trp Gly Phe Pro Ile
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30 Phe Leu Val Thr Leu Val Ala Leu Val Asp Val Asp Asn Tyr Gly Pro
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35 Ile Ile Leu Ala Val His Arg Thr Pro Glu Gly Val Ile Tyr Pro Ser
545 550 555 560

Met Cys Trp Ile Arg Asp Ser Leu Val Ser Tyr Ile Thr Asn Leu Gly
565 570 575

40 Leu Phe Ser Leu Val Phe Leu Phe Asn Met Ala Met Leu Ala Thr Met
580 585 590

45 Val Val Gln Ile Leu Arg Leu Arg Pro His Thr Gln Lys Trp Ser His
595 600 605

50 Val Leu Thr Leu Leu Gly Leu Ser Leu Val Leu Gly Leu Pro Trp Ala
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Leu Ile Phe Phe Ser Phe Ala Ser Gly Thr Phe Gln Leu Val Val Leu
625 630 635 640

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645 650 655

10 Trp Tyr Trp Ser Met Arg Leu Gln Ala Arg Gly Gly Pro Ser Pro Leu
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45 caggtggtga cttccaagag tgactccgtc ggaggaaa atg act ccc cag tcg ctg 176
Met Thr Pro Gln Ser Leu
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Leu Gln Thr Thr Leu Phe Leu Leu Ser Leu Leu Phe Leu Val Gln Gly
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25	ctt ctc tat ggc aag cgt gac ttc ttg ctg agt gac aaa gcc tct agc Leu Leu Tyr Gly Lys Arg Asp Phe Leu Leu Ser Asp Lys Ala Ser Ser 105 110 115	512
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	Gln	Asp	Leu	His	Ile	His	Ser	Arg	Gln	Glu	Glu	Glu	Gln	Ser	Glu	Ile	
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	Gly	Arg	Ser	Gly	Glu	Ala	Glu	Lys	Arg	Leu	Leu	Val	Val	Asp	Phe	Ser	
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	Glu	Pro	Val	Val	Leu	Thr	Phe	Gln	His	Gln	Leu	Gln	Pro	Lys	Asn	Val	
						330				335					340		
35	act	ctg	caa	tgt	gtg	ttc	tgg	ggt	gaa	gac	ccc	aca	ttg	agc	agc	ccg	1232
	Thr	Leu	Gln	Cys	Val	Phe	Trp	Val	Glu	Asp	Pro	Thr	Leu	Ser	Ser	Pro	
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40	ggg	cat	tgg	agc	agt	gct	ggg	tgt	gag	acc	gtc	agg	aga	gaa	acc	caa	1280
	Gly	His	Trp	Ser	Ser	Ala	Gly	Cys	Glu	Thr	Val	Arg	Arg	Glu	Thr	Gln	
				360			365					370					
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						395				400				405			
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65	cgg	gac	tac	acc	atc	aag	gtg	cac	atg	aac	ctg	ctg	ctg	gcc	gtc	ttc	1520
	Arg	Asp	Tyr	Thr	Ile	Lys	Val	His	Met	Asn	Leu	Leu	Leu	Ala	Val	Phe	

	440	445	450	
	ctg ctg gac acg agc ttc ctg ctc agc gag ccg gtg gcc ctg aca ggc	1568		
	Leu Leu Asp Thr Ser Phe Leu Leu Ser Glu Pro Val Ala Leu Thr Gly			
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	tct gag gct ggc tgc cga gcc agt gcc atc ttc ctg cac ttc tcc ctg	1616		
	Ser Glu Ala Gly Cys Arg Ala Ser Ala Ile Phe Leu His Phe Ser Leu			
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	Leu Thr Cys Leu Ser Trp Met Gly Leu Glu Gly Tyr Asn Leu Tyr Arg			
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25	gcc ctg gtg gat gtg gac aac tat ggc ccc atc atc ttg gct gtg cat	1808		
	Ala Leu Val Asp Val Asp Asn Tyr Gly Pro Ile Ile Leu Ala Val His			
		535	540	545
30	agg act cca gag ggc gtc atc tac cct tcc atg tgc tgg atc cgg gac	1856		
	Arg Thr Pro Glu Gly Val Ile Tyr Pro Ser Met Cys Trp Ile Arg Asp			
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35	tcc ctg gtc agc tac atc acc aac ctg ggc ctc ttc agc ctg gtg ttt	1904		
	Ser Leu Val Ser Tyr Ile Thr Asn Leu Gly Leu Phe Ser Leu Val Phe			
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	Leu Phe Asn Met Ala Met Leu Ala Thr Met Val Val Gln Ile Leu Arg			
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	Leu Arg Pro His Thr Gln Lys Trp Ser His Val Leu Thr Leu Leu Gly			
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	Leu Ser Leu Val Leu Gly Leu Pro Trp Ala Leu Ile Phe Phe Ser Phe			
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55	gct tct ggc acc ttc cag ctt gtc gtc ctc tac ctt ttc agc atc atc	2096		
	Ala Ser Gly Thr Phe Gln Leu Val Val Leu Tyr Leu Phe Ser Ile Ile			
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60	acc tcc ttc caa ggc ttc ctc atc ttc atc tgg tac tgg tcc atg cgg	2144		
	Thr Ser Phe Gln Gly Phe Leu Ile Phe Ile Trp Tyr Trp Ser Met Arg			
		650	655	660

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 Ala Arg Leu Pro Ile Ser Ser Gly Ser Thr Ser Ser Arg Ile
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Ser Asp Lys Ala Ser Ser Leu Leu Cys Phe Gln His Gln Glu Glu Ser
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Pro Gln Lys Ala Ser Arg Arg Pro Ser Ala Ala Pro Ala Ser Gln Gln
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25	Ile Ile Leu Ala Val His Arg Thr Pro Glu Gly Val Ile Tyr Pro Ser	545		550		555	560
30	Met Cys Trp Ile Arg Asp Ser Leu Val Ser Tyr Ile Thr Asn Leu Gly	565		570		575	
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40	Val Val Gln Ile Leu Arg Leu Arg Pro His Thr Gln Lys Trp Ser His	595		600		605	
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50	Leu Ile Phe Phe Ser Phe Ala Ser Gly Thr Phe Gln Leu Val Val Leu	625		630		635	640
55	Tyr Leu Phe Ser Ile Ile Thr Ser Phe Gln Gly Phe Leu Ile Phe Ile	645		650		655	
60	Trp Tyr Trp Ser Met Arg Leu Gln Ala Arg Gly Gly Pro Ser Pro Leu	660		665		670	
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1 5 10

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Asp Phe Arg Phe Cys Ser Gln Arg Asn Gln Thr His Arg Ser Ser Leu

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His Tyr Lys Pro Thr Pro Asp Leu Arg Ile Ser Ile Glu Asn Ser Glu

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25 Leu Thr Val His Ala Pro Phe Pro Ala Ala His Pro Ala Ser Arg Ser
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30	ctg	gtc	act	ctg	gtg	gcg	ttg	gtg	gat	gtg	aat	aac	tac	ggc	ccc	att	1937
	Leu	Val	Thr	Leu	Val	Ala	Leu	Val	Asp	Val	Asn	Asn	Tyr	Gly	Pro	Ile	
			525				530					535					
35	atc	cta	gct	gtg	cgc	cgg	act	cgg	gaa	cgt	gtc	acc	tac	ccc	tct	atg	1985
	Ile	Leu	Ala	Val	Arg	Arg	Thr	Pro	Glu	Arg	Val	Thr	Tyr	Pro	Ser	Met	
			540			545					550				555		
40	tgc	tgg	atc	cgg	gac	tcc	ctg	gtg	agc	tat	gtc	acc	aac	ctg	ggc	ctc	2033
	Cys	Trp	Ile	Arg	Asp	Ser	Leu	Val	Ser	Tyr	Val	Thr	Asn	Leu	Gly	Leu	
				560					565					570			
45	ttc	agt	ctg	gtg	ttc	ctg	ttc	aac	ctg	gct	atg	ctg	gcc	acc	atg	gtg	2081
	Phe	Ser	Leu	Val	Phe	Leu	Phe	Asn	Leu	Ala	Met	Leu	Ala	Thr	Met	Val	
				575				580					585				
50	gtg	cag	atc	ctg	cgg	ctt	cgc	cgg	cac	agc	cag	aac	tgg	ccc	cac	gtg	2129
	Val	Gln	Ile	Leu	Arg	Leu	Arg	Pro	His	Ser	Gln	Asn	Trp	Pro	His	Val	
			590				595					600					
55	ctg	acc	ctg	ctg	ggc	ctc	agc	ctg	gtc	ctt	ggc	ctc	ccc	tgg	gcc	ttg	2177
	Leu	Thr	Leu	Leu	Gly	Leu	Ser	Leu	Val	Leu	Gly	Leu	Pro	Trp	Ala	Leu	
			605			610					615						
60	gtc	ttc	ttt	tcc	ttt	gct	tcc	ggc	acc	ttc	cag	ctt	gtc	atc	ctc	tac	2225
	Val	Phe	Phe	Ser	Phe	Ala	Ser	Gly	Thr	Phe	Gln	Leu	Val	Ile	Leu	Tyr	
				620		625					630				635		

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5 ttc tgg tcc atg cgg ttc cag gcc caa ggc ggc ccc tcc cct ctg aag 2321
 Tyr Trp Ser Met Arg Phe Gln Ala Gln Gly Gly Pro Ser Pro Leu Lys
 655 660 665

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 Asn Asn Ser Asp Ser Ala Lys Leu Pro Ile Ser Ser Gly Ser Thr Ser
 670 675 680

15 tcc agc cgc atc taa gccaccgcca cacctccct ccggaggagc acatgcatgg 2424
 Ser Ser Arg Ile
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 Arg Phe Cys Gly Gln Arg Asn Gln Thr Gln Gln Ser Thr Leu His Tyr
 35 40 45
 10 Asp Gln Ser Ser Glu Pro His Ile Phe Val Trp Asn Thr Glu Glu Thr
 50 55 60
 15 Leu Thr Ile Arg Ala Pro Phe Leu Ala Ala Pro Asp Ile Pro Arg Phe
 65 70 75 80
 Phe Pro Glu Pro Arg Gly Leu Tyr His Phe Cys Leu Tyr Trp Ser Arg
 85 90 95
 20 His Thr Gly Arg Leu His Leu Arg Tyr Gly Lys His Asp Tyr Leu Leu
 100 105 110
 25 Ser Ser Gln Ala Ser Arg Leu Leu Cys Phe Gln Lys Gln Glu Gln Ser
 115 120 125
 30 Leu Lys Gln Gly Ala Pro Leu Ile Ala Thr Ser Val Ser Ser Trp Gln
 130 135 140
 35 Ile Pro Gln Asn Thr Ser Leu Pro Gly Ala Pro Ser Phe Ile Phe Ser
 145 150 155 160
 Phe His Asn Ala Pro His Lys Val Ser His Asn Ala Ser Val Asp Met
 165 170 175
 40 Cys Asp Leu Lys Lys Glu Leu Gln Leu Ser Arg Tyr Leu Gln His
 180 185 190
 45 Pro Gln Lys Ala Ala Lys Arg Pro Thr Ala Ala Phe Ile Ser Gln Gln
 195 200 205
 50 Leu Gln Ser Leu Glu Ser Lys Leu Thr Ser Val Ser Phe Leu Gly Asp
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Thr Leu Ser Phe Glu Glu Asp Arg Val Asn Ala Thr Val Trp Lys Leu
225 230 235 240

5 Pro Pro Thr Ala Gly Leu Glu Asp Leu His Ile His Ser Gln Lys Glu
245 250 255

10 Glu Glu Gln Ser Glu Val Gln Ala Tyr Ser Leu Leu Leu Pro Arg Ala
260 265 270

Val Phe Gln Gln Thr Arg Gly Arg Arg Arg Asp Asp Ala Lys Arg Leu
275 280 285

15 Leu Val Val Asp Phe Ser Ser Gln Ala Leu Phe Gln Asp Lys Asn Ser
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20 Ser Gln Val Leu Gly Glu Lys Val Leu Gly Ile Val Val Gln Asn Thr
305 310 315 320

25 Lys Val Thr Asn Leu Ser Asp Pro Val Val Leu Thr Phe Gln His Gln
325 330 335

30 Pro Gln Pro Lys Asn Val Thr Leu Gln Cys Val Phe Trp Val Glu Asp
340 345 350

Pro Ala Ser Ser Ser Thr Gly Ser Trp Ser Ser Ala Gly Cys Glu Thr
355 360 365

35 Val Ser Arg Asp Thr Gln Thr Ser Cys Leu Cys Asn His Leu Thr Tyr
370 375 380

40 Phe Ala Val Leu Met Val Ser Ser Thr Glu Val Glu Ala Thr His Lys
385 390 395 400

45 His Tyr Leu Thr Leu Leu Ser Tyr Val Gly Cys Val Ile Ser Ala Leu
405 410 415

Ala Cys Val Phe Thr Ile Ala Ala Tyr Leu Cys Ser Arg Arg Lys Ser
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50 Arg Asp Tyr Thr Ile Lys Val His Met Asn Leu Leu Ser Ala Val Phe

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10	Ser Glu Ala Ala Cys Arg Thr Ser Ala Met Phe Leu His Phe Ser Leu				
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					480
15	Leu Ala Cys Leu Ser Trp Met Gly Leu Glu Gly Tyr Asn Leu Tyr Arg				
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					495
20	Leu Val Val Glu Val Phe Gly Thr Tyr Val Pro Gly Tyr Leu Leu Lys				
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					510
25	Leu Ser Ile Val Gly Trp Gly Phe Pro Val Phe Leu Val Thr Leu Val				
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					525
30	Ala Leu Val Asp Val Asn Asn Tyr Gly Pro Ile Ile Leu Ala Val Arg				
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					540
35	Arg Thr Pro Glu Arg Val Thr Tyr Pro Ser Met Cys Trp Ile Arg Asp				
			545		550
					555
40	Ser Leu Val Ser Tyr Val Thr Asn Leu Gly Leu Phe Ser Leu Val Phe				
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					575
45	Leu Phe Asn Leu Ala Met Leu Ala Thr Met Val Val Gln Ile Leu Arg				
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					590
50	Leu Arg Pro His Ser Gln Asn Trp Pro His Val Leu Thr Leu Leu Gly				
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					605
55	Leu Ser Leu Val Leu Gly Leu Pro Trp Ala Leu Val Phe Phe Ser Phe				
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					620
60	Ala Ser Gly Thr Phe Gln Leu Val Ile Leu Tyr Leu Phe Ser Ile Ile				
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					635
65	Thr Ser Tyr Gln Gly Phe Leu Ile Phe Leu Trp Tyr Trp Ser Met Arg				
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					655

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